

single cavity ICD through subclavian vein. The electrodes were placed in right ventricular apex, the ICD was placed in the left chest.

**RESULTS** All patients were successfully implanted ICD. We gave those Postoperatives a follow-up of 3 ~ 12 months, no surgery related complications happened. Among of them, there were 2 patients launched the ICD therapy program (electric shock cardioverter, defibrillation or ATP treatment), and the other 2 cases did not start treatment program.

**CONCLUSIONS** The ICD can convert the malignant arrhythmia effectively, it is a preferred treatment in the treatment of malignant arrhythmia, and the prevention of sudden death.

#### GW26-e3954

**To evaluate the relational ships between heart rate changes before and after pacemaker implantation and BNP**

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**OBJECTIVES** To evaluate the relational ships between heart rate changes before and after pacemaker implantation and B-type brain natriuretic peptide (BNP) levels.

**METHODS** A total of 118 patients with sick sinus syndrome of DDD(R) cardiac pacemaker therapy and 100 patients with atrial fibrillation and slow heart rate of single cavity (VVI) cardiac pacemaker therapy from December 2007 to January 2011 were enrolled in this study. We followed the changes of heart rate for postoperative patients and detect the plasma BNP level with enzyme-linked immunosorbent method; we get the change rules between the two by comparison.

**RESULTS** Through a median follow-up of 60 days and laboratory tests and pacemaker programmed control, Compared with preoperative plasma levels, the plasma BNP levels of the sick sinus syndrome who Accept double cavity of DDD cardiac pacemaker therapy (R) declined significantly[(272.17±21.23) ng/L vs (52.39±18.22) ng/L,  $P<0.01$ ]. Atrial fibrillation with slow heart rate who accepted single cavity VVI cardiac pacemaker therapy [(112.03±11.34) ng/L vs. (103.93±12.54) ng/L,  $P<0.01$ ]. Compared with preoperative plasma levels, blood plasma BNP level has no obvious changes. The relationship between heart rate and blood plasma BNP levels were significantly.

**CONCLUSIONS** Slow heart rate can increase left cardiac preload and damage ventricular systolic function and cause cardiac insufficiency for a long time.

### ARRHYTHMIA INTERVENTION

#### GW26-e1801

**Warfarin Effect on Renal function in Patients with Nonvalvular Atrial Fibrillation: Results from the Chinese Atrial Fibrillation Registry**

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**OBJECTIVES** Warfarin is the most commonly used oral medication for anticoagulation to reduce the risk of stroke from atrial fibrillation, but little data is available for demonstrating its impacts on renal function of patients with nonvalvular atrial fibrillation (NVAF).

The prospective study aimed to evaluate warfarin effect on renal function by analyzing data of a total of 1590 Chinese adult patients, enrolled in the Chinese Atrial Fibrillation Registry, with ECG-detected NVAF with no dialysis.

**METHODS** We calculated estimated glomerular filtration rate (eGFR) using the Chinese Modification of Diet in Renal Disease study equation. Patients were divided into two groups, one group with warfarin (n= 696) and the other group with no anticoagulation (n=894 ). The endpoint was reached with the event of a  $\geq 25\%$  decrease in eGFR. The results of laboratory investigations and eGFR were recorded at months 3, 6, 12, 18, and 24 from treatment initiation.

**RESULTS** With follow-up over 2.7 years, comparing the two groups, warfarin group has less event rate than no anticoagulation group (8.05% versus 12.08%,  $p=0.005$ ) and longer survival time (LogRank  $p=0.020$ ). Additionally, in our multivariate Cox regression analysis, warfarin therapy was discovered to be the only protective factor in these NVAF patients (Hazard Rate 0.700, 95% CI: 0.496-0.990,  $P=0.044$ ).

**CONCLUSIONS** Warfarin therapy has protection effect on event of a  $\geq 25\%$  decrease in eGFR and delays kidney function deterioration in Chinese patients with NVAF.

#### GW26-e1465

**Self management of warfarin therapy in atrial fibrillation patients in China, a pilot study**

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**OBJECTIVES** The objective of this study was to evaluate the impact of a patient self-management program on security, efficacy, quality of life about anticoagulation control in AF patients requiring chronic warfarin therapy compared with clinic standard treatment in China.

**METHODS** Our study was a prospective cohort study. 274 eligible subjects agreed to participate. 89 subjects chose the portable INR monitor to self-testing at home, who were assigned to PSM group. 185 subjects received standard treatment in an anticoagulation clinic, they were assigned to conventional group. the PSM group participated in the consecutive instruction courses that aimed to practice OAC management on their own. Follow-up 12 months. Quality of life (QOL) was assessed using the questionnaire Short-Form 12 Health Survey, version 2 (SF-12v2), Time in therapeutic range (TTR) assessed the quality of the anticoagulation treatment given. An INR range of 2.0 to 3.0 has been established as therapeutic by stroke prevention trials in AF.

**RESULTS** 80 subjects in PSM group and 168 subjects in conventional group completed the study, respectively. The two groups of data are shown that the regression equation for measured value of the portable INR monitor (y axis) and traditional central lab measured value (x axis) is  $y = 0.927x + 0.177$ . Good correlation between the INR measured values of the two groups can be observed ( $r = 0.926$ ,  $p < 0.05$ ). Meanwhile, its bias can be observed with Bland-Altman diagram, the bias between the Self-testing INR and the conventional method INR in parallel is  $(-0.173 \pm 0.157)$  and no sample bias more than 0.5 INR units. The median frequency of INR measurements in the study period was 7.3 days test INR one time in PSM group compared to 38.7 days in the conventional group ( $p=0.000$ ). Medians of the percentage of TTR was 68% versus 57% ( $p=0.000$ ). Cumulative risk of the first primary endpoint is performed by using Kaplan-Meier analysis,  $P=0.131$ . Thromboembolic complications occurred in 4 patients in the PSM group versus in 15 patients in the conventional group ( $P=0.277$ ). major bleeding events occurred in 1 patients versus 6 patients in the PSM group and the conventional group, respectively ( $P=0.534$ ). At least one minor bleeding occurred in two groups was no statistically significant ( $P=0.465$ ). There were significant improvement ( $P=0.038$ ) of the total physical score between the PSM group ( $42.3 \pm 5.3$ ) and control group ( $40.7 \pm 5.8$ ) after 12months follow-up. Significant improvement was also observed in total mental composite score ( $P=0.046$ ) in the PSM group ( $53.4 \pm 6.5$ ) compared to control ( $51.5 \pm 7.2$ ).

**CONCLUSIONS** Patient self-testing of INR has a good consistency and stability compared with traditional laboratory testing. For the AF patients requiring chronic warfarin therapy compared with standard treatment, the patient self-management of anticoagulation therapy is a security and efficacious choice, which could improve AF patient's quality of life and has a promising future application in China.

#### GW26-e4601

**Are 23-mm Cryoballoons Better than 28-mm Ones for the Treatment of Atrial Fibrillation in China?**

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**OBJECTIVES** To compare the procedural parameters, safety and efficacy between the two sizes (23- and 28- mm) of the first-generation cryoballoon catheter for the treatment of atrial fibrillation in China.

**METHODS** Eighty - one consecutive patients with drug-refractory, symptomatic AF (96.3% paroxysmal) underwent pulmonary vein isolation (PVI) with the first-generation CBC were enrolled. Two groups were defined according to the balloon used during each procedure: Group 23- and 28- mm. The procedural parameters, procedure-related complications, acute and mid-term success rates were compared between the two groups.

**RESULTS** The percentage of procedures with 23-, 28- mm balloon alone, and double balloons was 49.4%, 46.9% and 3.7%. Compared with Group 28- mm, the mean freeze time ( $41.6 \pm 9.7$  vs.  $32.9 \pm 3.5$  min,  $P < 0.001$ ), fluoroscopic time ( $46.2 \pm 15.3$  vs.  $33.9 \pm 10.9$  min,  $P < 0.001$ ) and procedural time ( $125.0 \pm 27.2$  vs.  $98.3 \pm 18.2$  min,  $P < 0.001$ ) was shorter in Group 23- mm, the acute PVI rate with CBC alone was higher both on vein level (90.7% vs. 96.9%,  $P = 0.021$ ) and patient